Claims 1-67 (Cancelled).

68. (Currently Amended) An apparatus for obtaining information associated with an anatomical structure, comprising:

a housing;

at least one ~~an image-forming~~ lens ~~arrangement~~ that is different from the housing, and which is configured to provide there through electro-magnetic radiation, wherein the electro-magnetic radiation is provided by at least one of a broadband source or a wavelength tuned source;

an optical waveguide configured to transmit and receive the electro-magnetic radiation and the information from the structure on a macroscopic scale;

at least one further arrangement which is structured to obtain the information based on a radiation obtained from the structure, wherein the information is at least one of a two-dimensional image or a three dimensional image; and

a dispersive arrangement which is configured to receive at least one portion of the electro-magnetic radiation and forward a dispersed radiation thereof to at least one section of the structure regarding which the information is being obtained on a macroscopic scale, wherein, upon being impacted the radiation from the anatomical structure, the ~~image-forming~~ lens ~~arrangement~~ forms an image of the anatomical structure, and wherein the lens and the dispersive arrangement are provided in an optical path between the optical waveguide and the anatomical structure.

Claim 69 (Cancelled).

70. (Previously Presented) The apparatus according to claim 68, wherein the dispersive arrangement contains at least one of a diffractive element or a refractive element.

71. (Previously Presented) The apparatus according to claim 70, wherein the dispersive element is at least one of a fiber grating, a blazed grating, a binary, prism or a holographic lens grating.

72. (Previously Presented) The apparatus according to claim 68, wherein the lens arrangement contains at least one of a gradient index lens, a reflective mirror lens grating combination or a diffractive lens.

Claim 73 (Cancelled).

74. (Previously Presented) The apparatus according to claim 68, wherein the optical waveguide is an optical fiber.

Claim 75 (Cancelled).

76. (Previously Presented) The apparatus according to claim 69, wherein the at least one of the two-dimensional image or the three-dimensional image contains from about 300,000 to 1,000,000 resolvable points.

77. (Previously Presented) The apparatus according to claim 75, wherein the at least one of the two-dimensional image or the three-dimensional image contains from about 150,000 to 300,000 resolvable points.

78. (Previously Presented) The apparatus according to claim 75, wherein the at least one of the two-dimensional image or the three-dimensional image contains from about 100,000 to 150,000 resolvable points.

79. (Previously Presented) The apparatus according to claim 68, wherein the apparatus is a probe having a diameter of less than about 2.0 mm.

80. (Previously Presented) The apparatus according to claim 68, wherein the apparatus is a probe having a diameter of less than about 1.0 mm.

81. (Previously Presented) The apparatus according to claim 68, further comprising an additional arrangement configured to modify at least one property of the structure.

82. (Previously Presented) The apparatus according to claim 81, wherein the additional arrangement is at least one of an ultrasonic arrangement, a laser arrangement, a cauterizing tip, a set of retractable teeth forming a claw for grabbing an object, a suction tube or an arrangement for grasping a sample.

Claim 83 (Cancelled).

84. (Previously Presented) The apparatus according to claim 68, wherein the optical waveguide comprises a plurality of fibers each of which is configured to provide there through the electro-magnetic radiation, at least one first fiber of the fibers being configured to provide a first electro-magnetic radiation to the at least one section so as to obtain the information, and at least one second fiber of the fibers configured to provide a second electro-magnetic radiation to the at least one section so as to modify at least one property of the structure.

85. (Previously Presented) The apparatus according to claim 84, wherein the first and second fibers are polished at different angles from one another.

86. (Previously Presented) The apparatus according to claim 68, wherein the dispersive arrangement is further configured to at least partially overlap the at least one section with a plurality of electro-magnetic radiations, wherein one of the electro-magnetic radiations has a wavelength in a first range, and another one of the electro-magnetic radiations has a wavelength in a second range, and wherein each of the first and second ranges are at least one element that is different from another one of the second ranges.

87. (Previously Presented) The apparatus according to claim 68, wherein at least one of a property, an orientation or a position of the dispersive arrangement is capable of being modified to provide a further radiation to a particular location of the at least one section,

and wherein the at least one property of the dispersed radiation is capable of being different from a property of the further radiation.

88. (Previously Presented) The apparatus according to claim 68, wherein the lens and dispersive arrangements are sized so as to be encompassed within a needle having a gauge of about 20 or smaller.

89. (Currently Amended) An apparatus for obtaining diagnostic information associated with an anatomical structure and modifying at least one property of at least one portion of the structure, comprising:

a housing;

at least one ~~an image-forming~~ lens ~~arrangement~~ that is different from the housing;

an optical waveguide configured to transmit and receive the electro-magnetic radiation and the information from the structure on a macroscopic scale, and including a plurality of fibers which are configured to provide there through the electro-magnetic radiation, at least one first fiber of the fibers being configured to provide a first electro-magnetic radiation to the at least one portion so as to obtain the information, and at least one second fiber of the fibers configured to provide a second electro-magnetic radiation to the at least one portion of the structure regarding which the information is being obtained so as to modify the at least one property, wherein the electro-magnetic radiation is provided by at least one of a broadband source or a wavelength tuned source;

at least one further arrangement which is structured to obtain the information based on a radiation obtained from the structure, wherein the information is at least one of a two-dimensional image or a three dimensional image; and

a dispersive arrangement configured to receive the first and second electromagnetic radiations, wherein, upon being impacted the radiation from the anatomical structure, the ~~image-forming~~ lens ~~arrangement~~ forms an image of the anatomical structure, and wherein the lens and the dispersive arrangement are provided in an optical path between the optical waveguide and the anatomical structure.

90. (Previously Presented) The apparatus according to claim 89, wherein the electro-magnetic radiation is provided by at least one of a broadband source or a wavelength tuned source.

91. (Previously Presented) The apparatus according to claim 89, wherein the dispersive arrangement contains at least one of a diffractive element or a refractive element.

92. (Previously Presented) The apparatus according to claim 91, wherein the dispersive element is at least one of a fiber grating, a blazed grating, a binary, prism or a holographic lens grating.

93. (Previously Presented) The apparatus according to claim 89, wherein the lens arrangement contains at least one of a gradient index lens, a reflective mirror lens grating combination or a diffractive lens.

94. (Previously Presented) The apparatus according to claim 89, wherein the optical waveguide is an optical fiber.

Claim 95 (Cancelled).

96. (Previously Presented) The apparatus according to claim 89, wherein the at least one of the two-dimensional image or the three-dimensional image contains from about 300,000 to 1,000,000 resolvable points.

97. (Previously Presented) The apparatus according to claim 8995, wherein the at least one of the two-dimensional image or the three-dimensional image contains from about 150,000 to 300,000 resolvable points.

98. (Previously Presented) The apparatus according to claim 89, wherein the at least one of the two-dimensional image or the three-dimensional image contains from about 100,000 to 150,000 resolvable points.

99. (Previously Presented) The apparatus according to claim 89, wherein the apparatus is a probe having a diameter of less than about 2.0 mm.

100. (Previously Presented) The apparatus according to claim 89, wherein the apparatus is a probe having a diameter of less than about 1.0 mm.

101. (Previously Presented) The apparatus according to claim 89, further comprising an additional arrangement configured to modify at least one property of the structure.

102. (Previously Presented) The apparatus according to claim 101, wherein the additional arrangement is at least one of an ultrasonic arrangement, a laser arrangement, a cauterizing tip, a set of retractable teeth forming a claw for grabbing an object, a suction tube or an arrangement for grasping a sample.

Claim 103 (Cancelled).

104. (Previously Presented) The apparatus according to claim 89, wherein at least one first fiber of the fibers is configured to provide a first electro-magnetic radiation to the at least one portion so as to obtain the information, and at least one second fiber of the fibers is configured to provide a second electro-magnetic radiation to the at least one portion so as to modify at least one property of the structure.

105. (Previously Presented) The apparatus according to claim 89, wherein the dispersive arrangement is further configured to at least partially overlap the at least one portion with a plurality of electro-magnetic radiations, wherein one of the electro-magnetic radiations has a wavelength in a first range, and another one of the electro-magnetic radiations has a wavelength in a second range, and wherein each of the first and second ranges are at least one element that is different from another one of the second ranges.

106. (Previously Presented) The apparatus according to claims 105, wherein the first and second electro-magnetic radiations overlap one another at the at least one portion.

107. (Previously Presented) The apparatus according to claim 89, wherein at least one of a property, an orientation or a position of the dispersive arrangement is capable of being modified to provide a further radiation to a particular location of the at least one portion, and wherein the at least one property of the dispersed radiation is capable of being different from a property of the further radiation.

108. (Previously Presented) The apparatus according to claim 89, further comprising a lens arrangement, wherein the lens and dispersive arrangements are sized so as to be encompassed within a needle having a gauge of about 20 or smaller.

109. (Previously Presented) The apparatus according to claim 89, wherein the dispersive arrangement is further configured to forward a dispersed radiation thereof to at least one portion of the structure on a macroscopic scale.

110. (Previously Presented) The apparatus according to claim 89, further comprising a plurality of probes, each of the probe capable of providing spatially encoded location information associated with the at least one portion.

111. (Previously Presented) The apparatus according to claim 89, wherein the dispersive arrangement includes at least one of a fiber grating, a blazed grating, a binary, a prism or a holographic lens grating.

112. (Previously Presented) The apparatus according to claim 111, further comprising a further grating which follows the dispersive arrangement and provided in a path of the electro-magnetic radiation.

113. (Currently Amended) An apparatus for obtaining information associated with an anatomical structure, comprising:

a housing;

at least one ~~an image-forming~~ lens ~~arrangement~~ that is different from the housing, and which is configured to provide a plurality of electro-magnetic radiations, and a dispersive arrangement configured to receive the electro-magnetic radiations and forward a dispersed radiation of each of the electro-magnetic radiations to at least one portion of the structure regarding which the information is being obtained and at least partially overlap the at least one portion, wherein one of the electro-magnetic radiations has a wavelength in a first range, and another one of the electro-magnetic radiations has a wavelength in a second range, and wherein each of the first and second ranges are at least one element that is different from another one of the second ranges, wherein the image-forming lens arrangement forms an image of the anatomical structure, and wherein the electro-magnetic radiations are provided by at least one of a broadband source or a wavelength tuned source;

an optical waveguide configured to transmit and receive the electro-magnetic radiation and the information from the structure on a macroscopic scale;

a dispersive arrangement configured to receive the electromagnetic radiations; and

at least one further arrangement which is structured to obtain the information based on a radiation obtained from the structure, wherein the information is at least one of a two-dimensional image or a three dimensional image, and wherein the lens and the dispersive arrangement are provided in an optical path between the optical waveguide and the anatomical structure.

114. (Previously Presented) The apparatus according to claim 113, wherein the optical waveguide comprises a plurality of optical fibers, wherein at least one first fiber of the fibers is configured to provide a first electro-magnetic radiation to the at least one portion so as to obtain the information, and at least one second fiber of the fibers is configured to provide a second electro-magnetic radiation to the at least one portion so as to modify at least one property of the structure.

115. (Previously Presented) The apparatus according to claim 113, wherein the optical waveguide comprises a plurality of fibers each of which is configured to provide there through the electro-magnetic radiation, at least one first fiber of the fibers being configured to provide a first electro-magnetic radiation to the at least one portion so as to obtain the information, and at least one second fiber of the fibers configured to provide a second electro-magnetic radiation to the at least one portion so as to modify at least one property of the structure.

116. (Previously Presented) The apparatus according to claim 113, wherein at least one of a property, an orientation or a position of the dispersive arrangement is capable of being modified to provide a further radiation to a particular location of the at least one portion, and wherein the at least one property of the dispersed radiation is capable of being different from a property of the further radiation.

117. (Previously Presented) The apparatus according to claim 113, further comprising a lens arrangement, wherein the lens and dispersive arrangements are sized so as to be encompassed within a needle having a gauge of about 20 or smaller.

118. (Previously Presented) The apparatus according to claim 113, wherein the dispersive arrangement is further configured to forward the dispersed radiation thereof to at least one portion of the structure on a macroscopic scale.

119. (Previously Presented) The apparatus according to claim 113, wherein the dispersive arrangement includes at least one of a fiber grating, a blazed grating, a binary, a prism or a holographic lens grating.

120. (Previously Presented) The apparatus according to claim 119, further comprising a further grating which follows the dispersive arrangement and provided in a path of the electro-magnetic radiation.

121. (Previously Presented) The apparatus according to claim 113, wherein the optical waveguide comprises a plurality of fibers each of which is configured to provide there through the electro-magnetic radiations.

122. (Previously Presented) The apparatus according to claim 121, wherein the electro-magnetic radiations provided from the structure are associated with the information.

123. (Previously Presented) The apparatus according to claim 122, wherein the information is at least one of a color, a multispectral dataset or a hyperspectral dataset.

124. (Previously Presented) The apparatus according to claim 123, wherein the at least one of the multispectral dataset or the hyperspectral dataset is at least one of a two-dimensional image, a three-dimensional image or a four-dimensional image.

125. (Currently Amended) An apparatus for obtaining information associated with an anatomical structure, comprising:

a housing;

at least one ~~an image-forming~~ lens ~~arrangement~~ that is different from the housing, and which is configured to provide an electro-magnetic radiation, wherein the electro-magnetic radiation is provided by at least one of a broadband source or a wavelength tuned source;

a dispersive arrangement configured to receive at least one portion of the electro-magnetic radiation and forward a dispersed radiation thereof to a particular location on at least one portion of the structure regarding which the information is being obtained;

an optical waveguide configured to transmit and receive the electro-magnetic radiation and the information from the structure on a macroscopic scale; and

at least one further arrangement which is structured to obtain the information based on a radiation obtained from the structure, wherein the information is at least one of a two-dimensional image or a three dimensional image,

wherein at least one of a property, an orientation or a position of the dispersive arrangement is capable of being modified to provide a further radiation to the particular location of the at least one portion, and wherein at least one property of the dispersed radiation is capable of being different from a property of the further radiation, wherein, upon being impacted the radiation from the anatomical structure, the ~~image-forming~~ lens ~~arrangement~~ forms an image of the anatomical structure, and wherein the lens and the dispersive arrangement are provided in an optical path between the optical waveguide and the anatomical structure.

126. (Previously Presented) The apparatus according to claim 125, wherein the optical waveguide comprises a plurality of optical fibers, wherein at least one first fiber of the fibers is configured to provide a first electro-magnetic radiation to the at least one portion so as to obtain the information, and at least one second fiber of the fibers is configured to provide a second electro-magnetic radiation to the at least one portion so as to modify at least one property of the structure.

127. (Previously Presented) The apparatus according to claim 125, wherein the optical waveguide comprises a plurality of fibers each of which is configured to provide there through the electro-magnetic radiation, at least one first fiber of the fibers being configured to provide a first electro-magnetic radiation to the at least one portion so as to obtain the information, and at least one second fiber of the fibers configured to provide a second electro-magnetic radiation to the at least one portion so as to modify at least one property of the structure.

128. (Previously Presented) The apparatus according to claim 125, wherein the dispersive arrangement is further configured to at least partially overlap the at least one portion with a plurality of electro-magnetic radiations, wherein one of the electro-magnetic radiations has a wavelength in a first range, and another one of the electro-magnetic radiations has a wavelength in a second range, and wherein each of the first and second ranges are at least one element that is different from another one of the second ranges.

129. (Previously Presented) The apparatus according to claim 125, further comprising a lens arrangement, wherein the lens and dispersive arrangements are sized so as to be encompassed within a needle having a gauge of about 20 or smaller.

130. (Previously Presented) The apparatus according to claim 125, wherein the dispersive arrangement is further configured to forward the dispersed radiation thereof to at least one portion of the structure on a macroscopic scale.

131. (Currently Amended) An apparatus for obtaining information associated with an anatomical structure, comprising:

a housing;

at least one ~~an image-forming~~ lens ~~arrangement~~ that is different from the housing, and which is configured to provide there through electro-magnetic radiation, wherein the electro-magnetic radiation is provided by at least one of a broadband source or a wavelength tuned source;

an optical waveguide configured to transmit and receive the electro-magnetic radiation and the information from the structure on a macroscopic scale;

at least one further arrangement which is structured to obtain the information based on a radiation obtained from the structure, wherein the information is at least one of a two-dimensional image or a three dimensional image; and

a dispersive arrangement which is configured to receive at least one portion of the electro-magnetic radiation and forward a dispersed radiation thereof to at least one portion of the structure regarding which the information is being obtained, wherein the lens and dispersive arrangements are sized so as to be encompassed within a needle having a gauge of about 20 or smaller, wherein, upon being impacted the radiation from the anatomical structure, the ~~image-forming~~ lens ~~arrangement~~ forms an image of the anatomical structure, and wherein the lens and the dispersive arrangement are provided in an optical path between the optical waveguide and the anatomical structure.

132. (Previously Presented) The apparatus according to claim 131, wherein the optical waveguide comprises a plurality of optical fibers, wherein at least one first fiber of the fibers is configured to provide a first electro-magnetic radiation to the at least one portion so as to obtain the information, and at least one second fiber of the fibers is configured to provide a second electro-magnetic radiation to the at least one portion so as to modify at least one property of the structure.

133. (Previously Presented) The apparatus according to claim 131, wherein the optical waveguide comprises a plurality of fibers each of which is configured to provide there through the electro-magnetic radiation, at least one first fiber of the fibers being configured to provide a first electro-magnetic radiation to the at least one portion so as to obtain the information, and at least one second fiber of the fibers configured to provide a second electro-magnetic radiation to the at least one portion so as to modify at least one property of the structure.

134. (Previously Presented) The apparatus according to claim 131, wherein the dispersive arrangement is further configured to at least partially overlap the at least one portion with a plurality of electro-magnetic radiations, wherein one of the electro-magnetic radiations has a wavelength in a first range, and another one of the electro-magnetic radiations has a wavelength in a second range, and wherein each of the first and second ranges are at least one element that is different from another one of the second ranges.

135. (Previously Presented) The apparatus according to claim 131, wherein at least one of a property, an orientation or a position of the dispersive arrangement is capable of being modified to provide a further radiation to a particular location of the at least one portion, and wherein the at least one property of the dispersed radiation is capable of being different from a property of the further radiation.

136. (Previously Presented) The apparatus according to claim 131, wherein the dispersive arrangement is further configured to forward the dispersed radiation thereof to at least one portion of the structure on a macroscopic scale.

137. (Previously Presented) The apparatus according to claim 68, wherein the dispersive arrangement includes a grating.

138. (Previously Presented) The apparatus according to claim 89, wherein the dispersive arrangement includes a grating.

139. (Previously Presented) The apparatus according to claim 113, wherein the dispersive arrangement includes a grating.

140. (Previously Presented) The apparatus according to claim 125, wherein the dispersive arrangement includes a grating.

141. (Previously Presented) The apparatus according to claim 131, wherein the dispersive arrangement includes a grating.

142. (Currently Amended) An apparatus for obtaining information associated with a structure, comprising:

~~an image-forming~~ lens arrangement which is configured to provide there through an electro-magnetic radiation; and

a dispersive arrangement which is configured to receive at least one portion of the electro-magnetic radiation and forward a dispersed radiation thereof to at least one section of the structure regarding which the information is being obtained on a macroscopic scale, wherein the dispersive arrangement is structured to provide at least 625 spectrally-resolvable points without a controlled mechanical motion.

143. (Currently Amended) An apparatus for obtaining diagnostic information associated with a structure and modifying at least one property of at least one portion of the structure, comprising:

~~an image-forming~~ lens arrangement and a plurality of fibers which are configured to provide there through the electro-magnetic radiation, at least one first fiber of the fibers being configured to provide a first electro-magnetic radiation to the at least one portion so as to obtain the information, and at least one second fiber of the fibers configured to provide a second electro-magnetic radiation to the at least one portion of the structure regarding which the information is being obtained so as to modify the at least one property; and

a dispersive arrangement configured to receive the first and second electromagnetic radiations, wherein the dispersive arrangement is structured to provide at least 625 spectrally-resolvable points without a controlled mechanical motion.

144. (Currently Amended) An apparatus for obtaining information associated with a structure, comprising:

~~an image-forming~~ lens arrangement which is configured to provide a plurality of electro-magnetic radiations and a dispersive arrangement configured to receive the electro-magnetic radiations and forward a dispersed radiation of each of the electro-magnetic radiations to at least one portion of the structure regarding which the information is being obtained and at least partially overlap the at least one portion, wherein one of the electro-magnetic radiations has a wavelength in a first range, and another one of the electro-magnetic radiations has a wavelength in a second range, wherein each of the first and second ranges are at least one element that is different from another one of the second ranges, ~~and~~ wherein the dispersive arrangement is structured to provide at least 625 spectrally-resolvable points without a controlled mechanical motion.

145. (Currently Amended) An apparatus for obtaining information associated with a structure, comprising:

~~an image-forming~~ lens arrangement which is configured to provide an electro-magnetic radiation; and

a dispersive arrangement configured to receive at least one portion of the electro-magnetic radiation and forward a dispersed radiation thereof to a particular location on at least one portion of the structure regarding which the information is being obtained,

wherein at least one of a property, an orientation or a position of the dispersive arrangement is capable of being modified to provide a further radiation to the particular location of the at least one portion, wherein at least one property of the dispersed radiation is capable of being different from a property of the further radiation, and wherein the dispersive arrangement is structured to provide at least 625 ~~100~~ spectrally-resolvable points without a controlled mechanical motion.

146. (Currently Amended) An apparatus for obtaining information associated with a structure, comprising:

~~an image-forming~~ lens arrangement which is configured to provide there through electro-magnetic radiation; and

a dispersive arrangement which is configured to receive at least one portion of the electro-magnetic radiation and forward a dispersed radiation thereof to at least one portion of the structure regarding which the information is being obtained, wherein the lens and dispersive arrangements are sized so as to be encompassed within a needle having a gauge of about 20 or smaller, and wherein the dispersive arrangement is structured to provide at least 625 spectrally-resolvable points without a controlled mechanical motion.

147. (Currently Amended) The apparatus according to claim 74, wherein the optical fiber has an end portion that is provided specifically at a position of an image plane of the at least one ~~portion~~ section of the structure which is established by the lens.

148. (Previously Presented) The apparatus according to claim 68, further comprising a processing arrangement which receives data associated with the dispersed radiation provided to the at least one section of the structure, and generates a single image based on the data and as a function of a plurality of wavelengths of the electro-magnetic radiation.

First Claims 149-151. (Cancelled).

Second Claim 149. (Cancelled).

150. (Previously Presented) The apparatus according to claim 68, further comprising a detection arrangement which is configured to detect a further radiation provided from the structure.

151. (Previously Presented) The apparatus according to claim 150, wherein the dispersive arrangement is provided closer to the structure than the detection arrangement.

Claim 152 (Cancelled).

153. (Previously Presented) The apparatus according to claim 113, further comprising a detection arrangement which is configured to detect a further radiation provided from the structure.

154. (Previously Presented) The apparatus according to claim 153, wherein the dispersive arrangement is provided closer to the structure than the detection arrangement.

Claim 155 (Cancelled).

156. (Previously Presented) The apparatus according to claim 125, further comprising a detection arrangement which is configured to detect a further radiation provided from the structure.

157. (Previously Presented) The apparatus according to claim 156, wherein the dispersive arrangement is provided closer to the structure than the detection arrangement.

Claim 158 (Cancelled).

159. (Previously Presented) The apparatus according to claim 131, further comprising a detection arrangement which is configured to detect a further radiation provided from the structure.

160. (Previously Presented) The apparatus according to claim 159, wherein the dispersive arrangement is provided closer to the structure than the detection arrangement.

161. (Previously Presented) The apparatus according to claim 68, further comprising a detection arrangement which is configured to detect a further radiation provided from the structure.

162. (Previously Presented) The apparatus according to claim 150, wherein the dispersive arrangement is provided closer to the structure than the detection arrangement.

163. (New) The apparatus according to claim 68, wherein the electro-magnetic radiation is provided through the optical waveguide to impact (i) at least one of the lens or the dispersive arrangement, (ii) then another one of the lens or the dispersive arrangement, and (iii) then the anatomical structure.

164. (New) The apparatus according to claim 68, wherein the radiation is provided from the anatomical structure to impact (i) at least one of the lens or the dispersive arrangement, (ii) then another one of the lens or the dispersive arrangement, and (iii) then the anatomical structure.

165. (New) The apparatus according to claim 68, wherein the lens is provided in the housing.